

**CLAIMS**

1. A method of assisting the steering of steered wheels of a vehicle, in which a phase advance is applied between a steering wheel and a rack element so as to decrease the response time of the vehicle to an action of the driver of the vehicle on said steering wheel.

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2. The method as claimed in claim 1, in which the speed of rotation and the angular acceleration of the steering wheel are measured or estimated and a steered wheels steering preset is emitted as a function of said speed of rotation and angular acceleration.

3. The method as claimed in claim 2, in which the speed of rotation and the angular acceleration of the steering wheel are compared with predetermined thresholds, a phase advance being applied in case of overshoot of said thresholds.

4. The method as claimed in any one of the preceding claims, in which the steering preset is calculated on the basis of the angle of steer of the steered wheels and of a temporal advance.

5. The method as claimed in claim 4, in which the temporal advance is calculated on the basis of the angle of the steering wheel.

6. A system for assisting the steering of steered wheels of a vehicle (1), characterized in that it comprises a means for applying a phase advance between a steering wheel (8) and a rack element (14).

7. The system as claimed in claim 6, characterized in that it comprises a sensor (9) of parameters of

rotation of the steering wheel (8).

8. The system as claimed in claim 6 or 7,  
characterized in that the means for applying a phase  
5 advance comprises a control unit (10) receiving as  
input, parameters of rotation of the steering wheel  
(8), and provided with a means of calculation for  
calculating a phase advance dependent on parameters of  
rotation of the steering wheel (8).

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9. The system as claimed in any one of claims 6 to 8,  
characterized in that the means for applying a phase  
advance comprises a means for calculating a temporal  
advance as a function of angular parameters of the  
15 steering wheel, and a means (25) for calculating a  
steer angle preset as a function of angular parameters  
of steering of the steered wheels and of the temporal  
advance.

20 10. The system as claimed in claim 9, characterized in  
that the means for calculating a temporal advance as a  
function of angular parameters of the steering wheel  
comprises a fuzzy logic element (28) for formulating a  
confidence index and a table (24) for deducing a  
25 temporal advance from the confidence index.